UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604

DATE: NOV 0 8 2006

SUBJECT: Plant Inspection – Battery Builders Inc.
Naperville, Illinois

FROM: Shannon Downey, Environmental Engineer
Air Enforcement and Compliance Assurance Section
(IL/IN)

THRU: Brent Marable, Chief
Air Enforcement and Compliance Assurance Section
(IL/IN)

TO: File

Date of Inspection: August 16, 2006

Attendees: Shannon Downey, Environmental Engineer, U.S. EPA
Rodrigo Valle, Life Scientist, U.S. EPA
James Hanslik, Battery Builders Inc.

Purpose of Inspection:

To determine if Battery Builders Inc. (BBI) is in compliance with the Clean Air Act.

General Information:

Plant Location: 31W238 91st Street
Naperville, IL 60567

Primary Phone: 630-851-1040

Primary Contact: James Hanslik

Discussion With Plant Personnel

Rodrigo Valle and I arrived at the facility around 11:45am. We presented our credentials to the receptionist and asked to speak with the plant and/or environmental manager. James Hanslik is the president of the company. He took us to his office, where we held the opening conference. We explained to him that we were inspecting the facility under the Clean Air Act.

We began by asking him to tell us about the facility. He told us that Battery Builders operates from Sunday night to Friday night and has approximately 50 employees. Sunday night is spent working on the start-up and then shut-down is done on Friday night. BBI produces lead-acid batteries for forklifts. They begin the process by taking lead ingot and melting it down to make a lead grid, which is the framework of the battery cell. On average they produce approximately 15,000 cells per week. Once the lead grids have been cast, they are sent over to the pasting line. The pasting line is simply a line that takes lead oxide, which has a consistency of clay, and is pressed uniformly across each grid. The lead oxide is store on site in a large silo. From the pasting line the cells are sent to the curing room. The curing process consists of two steps. The first is taking the free lead in the lead oxide down from 27% to 2%. This is done by keeping the cells in a high-humidity room. The second step is when cells are allowed to dry in a curing oven, where the front end is approximately 300 °C and the back end is approximately 112 °C. The total time for the curing process is approximately 60 hours. After the cells have cured, they are taken over to the Plate Wrap and Sleeve Area. This is where the cells are assembled and put into steel cases. From there the electrodes are attached and the batteries are sent over to the Battery Formation Facility. This is where sulfuric acid is put in each battery and then each battery is charged for approximately 100 hours. Mr. Hanslik said that building a complete, charged battery takes about 4 weeks.

Next we discussed the pollution control equipment at the facility. BBI has two baghouses, one for the pasting operation and one for the casting area. A stack test was scheduled for the baghouse in the casting area on September 5, 2006. When asked when the last time a stack test was done on the baghouses, Mr. Hanslik was unsure, but thought that 1999 was correct. He also said that the bags in the baghouses were checked for leaks every three months using a black light and were replaced 5 years ago.

Plant Inspection/Walk-through

Mr. Hanslik began the walk-through by taking us to the grid casting area. From there we saw the pasting line. We then observed the high-moisture curing room and the curing oven. From the curing area, we proceeded to the plate wrap and sleeve area. After the plate wrap area, we saw the warehouse where the finished batteries are stored. Past the warehouse was the battery formulation facility, where the batteries are charged. The battery formulation facility had a very strong acrid smell despite the air ventilation system Mr. Hanslik pointed out to us some ductwork that changed over the air in the room several times a day. Finally, we cut back through the warehouse to the cell assembly area which is where the steel cases were put on and any finishing touches such as the company's logo were put on the battery itself.

Closing Conference

Mr. Hanslik took us back to his office where we thanked him for his time and told him that if there were any further questions, we would be issuing a Section 114 request. We left the facility at approximately 1:45 pm.

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originating reading file w/o attachments

other bccs: State Specialist (via WPO)